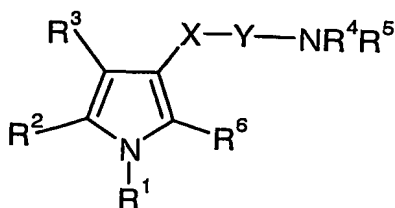


**Claims:**

1. A compound of formula (I)



I

and pharmaceutically acceptable salts, prodrugs and solvates thereof, in which  $\text{R}^1$  and  $\text{R}^2$  independently represent phenyl, thienyl or pyridyl each of which is optionally substituted by one, two or three groups represented by Z;

Z represents a  $\text{C}_{1-3}$ alkyl group, a  $\text{C}_{1-3}$ alkoxy group, hydroxy, halo, trifluoromethyl, trifluoromethylthio, difluoromethoxy, trifluoromethoxy, trifluoromethylsulphonyl, amino, mono or di  $\text{C}_{1-3}$ alkylamino, mono or di  $\text{C}_{1-3}$ alkylamido,  $\text{C}_{1-3}$ alkylsulphonyl,  $\text{C}_{1-3}$ alkoxycarbonyl, carboxy, cyano, carbamoyl, mono or di  $\text{C}_{1-3}$ alkyl carbamoyl, sulphamoyl and acetyl; and

$\text{R}^3$  is H, a  $\text{C}_{1-3}$ alkyl group, a  $\text{C}_{1-3}$ alkoxymethyl group, trifluoromethyl, an amino $\text{C}_{1-3}$ alkyl group, a hydroxy $\text{C}_{1-3}$ alkyl group,  $\text{C}_{1-3}$ alkoxycarbonyl, carboxy, cyano, carbamoyl, mono or di  $\text{C}_{1-3}$ alkylcarbamoyl, acetyl, or hydrazinocarbonyl of formula  $-\text{CONHNR}^a\text{R}^b$  wherein  $\text{R}^a$  and  $\text{R}^b$  are as defined for  $\text{R}^4$  and  $\text{R}^5$  respectively and;

X is CO or  $\text{SO}_2$  ;

Y is absent or represents NH optionally substituted by a  $\text{C}_{1-3}$ alkyl group;

$\text{R}^4$  and  $\text{R}^5$  independently represent :

a  $\text{C}_{1-6}$ alkyl group;

an (amino) $\text{C}_{1-4}$ alkyl- group in which the amino is optionally substituted by one or more  $\text{C}_{1-3}$ alkyl groups;

an optionally substituted non-aromatic  $\text{C}_{3-15}$ carbocyclic group;

a ( $\text{C}_{3-12}$ cycloalkyl) $\text{C}_{1-3}$ alkyl- group;

a group  $-(\text{CH}_2)_r(\text{phenyl})_s$  in which r is 0, 1, 2, 3 or 4, s is 1 when r is 0 otherwise s is 1 or 2 and the phenyl groups are optionally independently substituted by one, two or three groups represented by Z;

naphthyl;

anthracenyl;

a saturated 5 to 8 membered heterocyclic group containing one nitrogen and optionally one of the following : oxygen, sulphur or an additional nitrogen wherein the heterocyclic group is optionally substituted by one or more C<sub>1-3</sub>alkyl groups, hydroxy or benzyl ;

1-adamantylmethyl;

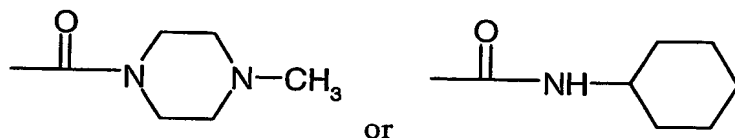
a group - (CH<sub>2</sub>)<sub>t</sub> Het in which t is 0, 1, 2, 3 or 4, and the alkylene chain is optionally substituted by one or more C<sub>1-3</sub>alkyl groups and Het represents an aromatic heterocycle optionally substituted by one, two or three groups selected from a C<sub>1-5</sub>alkyl group, a C<sub>1-5</sub>alkoxy group or halo;

or R<sup>4</sup> represents H and R<sup>5</sup> is as defined above;

or R<sup>4</sup> and R<sup>5</sup> together with the nitrogen atom to which they are attached represent a saturated 5 to 8 membered heterocyclic group containing one nitrogen and optionally one of the following : oxygen, sulphur or an additional nitrogen; wherein the heterocyclic group is optionally substituted by one or more C<sub>1-3</sub>alkyl groups, hydroxy or benzyl ;

R<sup>6</sup> is H, a C<sub>1-3</sub>alkyl group, a C<sub>1-3</sub>alkoxymethyl group, trifluoromethyl, a hydroxyC<sub>1-3</sub>alkyl group, C<sub>1-3</sub>alkoxycarbonyl, carboxy, cyano, carbamoyl, mono or di C<sub>1-3</sub>alkylcarbamoyl, acetyl, or hydrazinocarbonyl of formula -CONHN<sup>a</sup>R<sup>b</sup> wherein R<sup>a</sup> and R<sup>b</sup> are as defined for R<sup>4</sup> and R<sup>5</sup> respectively and;

with the proviso that when R<sup>6</sup> is methyl then the group X-Y-NR<sup>4</sup>R<sup>5</sup> does not represent CONHC<sub>6</sub>H<sub>13</sub>, CONHC<sub>12</sub>H<sub>25</sub>, CONH<sub>2</sub>, CONHCH<sub>3</sub>, CON(CH<sub>3</sub>)<sub>2</sub>,



and with the further proviso that when R<sup>1</sup> and R<sup>2</sup> independently represent phenyl then Z is not an ortho methyl group.

2. A compound according to claim 1 in which R<sup>1</sup> represents phenyl optionally substituted by halo or C<sub>1-3</sub>alkoxy located in the 2 and 4 positions of the phenyl ring.

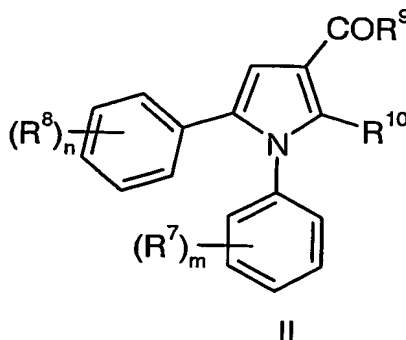
3. A compound according to any previous claim in which R<sup>2</sup> represents phenyl optionally substituted by halo or C<sub>1-3</sub>alkoxy located in the 2 and 4 positions of the phenyl ring.

- 29 -

4. A compound according to any previous claim in which  $X-Y-NR^4R^5$  represents CONHPh or CONH(1--piperidyl).

5. A compound according to any previous claim in which  $R^6$  represents methyl.

6. A compound according to claim 1 of the general formula (II) in which



and pharmaceutically acceptable salts, prodrugs, and solvates in which  $m$  represents 0, 1, 2 or 3

$R^7$  represents a  $C_{1-6}$ alkyl group, trifluoromethyl, a  $C_{1-6}$ alkoxy group, difluoromethoxy, trifluoromethoxy, or halo wherein when  $m$  is 2 or 3 then the groups  $R^7$  may be the same or different;

$n$  represents 0, 1, 2 or 3;

$R^8$  represents a  $C_{1-6}$ alkyl group, trifluoromethyl, a  $C_{1-6}$ alkoxy group, difluoromethoxy, trifluoromethoxy, or halo wherein when  $n$  is 2 or 3 then the groups  $R^8$  may be the same or different;

$R^9$  represents 1-piperidinyl, 1-piperidinylamino or anilino wherein the phenyl ring is optionally substituted by one or more of the following: a  $C_{1-6}$ alkyl group, trifluoromethyl, a  $C_{1-6}$ alkoxy group, difluoromethoxy, trifluoromethoxy or halo; and

$R^{10}$  represents a  $C_{1-6}$ alkyl,  $C_{1-6}$ alkoxy, or a  $C_{1-6}$ alkylamino group; with the proviso that the compound is not 1-[[1-(4-chlorophenyl)-5-phenyl-2-methyl-1H-pyrrol-3-yl]carbonyl]piperidine or 1-[[1-(2,4-dichlorophenyl)-5-phenyl-2-methyl-1H-pyrrol-3-yl]carbonyl]piperidine.

7. A compound according to claim 6 in which  $m$  is 2 and the groups  $R^7$  are located in the 2 and 4 positions of the phenyl ring.

8. A compound according to claim 6 or claim 7 in which  $n$  is 2 and the groups  $R^8$  are located in the 2 and 4 positions of the phenyl ring. In a third group of compounds of formula II,  $R^9$  represents anilino.

5 9. A compound according to any one of claims 6, 7 or 8 in which  $R^9$  represents 1-piperidinyl.

10. A compound according to any one of claims 6, 7, 8 or 9 in which  $R^9$  represents 1-piperidinylamino.

10

11. A compound according to any one of claims 6, 7, 8, 9 or 10 in which  $R^{10}$  represents methyl.

12. A compound selected from one or more of the following:

- 15 2-methyl-*N*,1,5-triphenyl-1*H*-pyrrole-3-carboxamide;  
 1-(4-chlorophenyl)-2-methyl-*N*,5-diphenyl-1*H*-pyrrole-3-carboxamide;  
 1-(4-methoxyphenyl)-2-methyl-*N*,5-diphenyl-1*H*-pyrrole-3-carboxamide;  
 5-(2,4-dichlorophenyl)-2-methyl-*N*,1-diphenyl-1*H*-pyrrole-3-carboxamide;  
 1-(4-chlorophenyl)-5-(2,4-dichlorophenyl)-2-methyl-*N*-phenyl-1*H*-pyrrole-3-carboxamide;  
 20 5-(2,4-dichlorophenyl)-1-(4-methoxyphenyl)-2-methyl-*N*-phenyl-1*H*-pyrrole-3-carboxamide;  
 5-(2,4-dimethoxyphenyl)-2-methyl-*N*,1-diphenyl-1*H*-pyrrole-3-carboxamide;  
 1-(4-chlorophenyl)-5-(2,4-dimethoxyphenyl)-2-methyl-*N*-phenyl-1*H*-pyrrole-3-carboxamide;  
 5-(2,4-dimethoxyphenyl)-1-(4-methoxyphenyl)-2-methyl-*N*-phenyl-1*H*-pyrrole-3-  
 carboxamide;  
 25 2-methyl-1,5-diphenyl-*N*-piperidin-1-yl-1*H*-pyrrole-3-carboxamide;  
 1-(4-chlorophenyl)-2-methyl-5-phenyl-*N*-piperidin-1-yl-1*H*-pyrrole-3-carboxamide;  
 1-(4-methoxyphenyl)-2-methyl-5-phenyl-*N*-piperidin-1-yl-1*H*-pyrrole-3-carboxamide;  
 5-(2,4-dichlorophenyl)-2-methyl-1-phenyl-*N*-piperidin-1-yl-1*H*-pyrrole-3-carboxamide;  
 1-(4-chlorophenyl)-5-(2,4-dichlorophenyl)-2-methyl-*N*-piperidin-1-yl-1*H*-pyrrole-3-  
 30 carboxamide;  
 5-(2,4-dichlorophenyl)-1-(4-methoxyphenyl)-2-methyl-*N*-piperidin-1-yl-1*H*-pyrrole-3-  
 carboxamide;  
 1-{[5-(2,4-dimethoxyphenyl)-2-methyl-1-phenyl-1*H*-pyrrol-3-yl]carbonyl}piperidine;

- 31 -

1-(4-chlorophenyl)-5-(2,4-dimethoxyphenyl)-2-methyl-*N*-piperidin-1-yl-1*H*-pyrrole-3-carboxamide; and

5-(2,4-dimethoxyphenyl)-1-(4-methoxyphenyl)-2-methyl-*N*-piperidin-1-yl-1*H*-pyrrole-3-carboxamide;

5 1-[(2-methyl-1,5-diphenyl-1*H*-pyrrol-3-yl)carbonyl]piperidine;

1-[[1-(4-methoxyphenyl)-2-methyl-5-phenyl-1*H*-pyrrol-3-yl]carbonyl]piperidine;

1-[[5-(2,4-dichlorophenyl)-2-methyl-1-phenyl-1*H*-pyrrol-3-yl]carbonyl]piperidine;

1-[[1-(4-chlorophenyl)-5-(2,4-dichlorophenyl)-2-methyl-1*H*-pyrrol-3-yl]carbonyl]piperidine;

1-[[5-(2,4-dichlorophenyl)-1-(4-methoxyphenyl)-2-methyl-1*H*-pyrrol-3-

10 yl]carbonyl]piperidine;

1-[[1-(4-chlorophenyl)-5-(2,4-dimethoxyphenyl)-2-methyl-1*H*-pyrrol-3-yl]carbonyl]piperidine;

1-[[5-(2,4-dimethoxyphenyl)-1-(4-methoxyphenyl)-2-methyl-1*H*-pyrrol-3-yl]carbonyl]piperidine;

15 and where applicable, optical isomers, tautomers, stereoisomers and racemates thereof as well as pharmaceutically acceptable salts and solvates thereof.

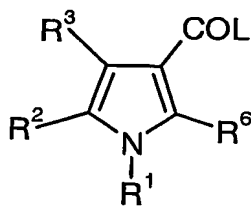
13. A compound of formula I as claimed in any previous claim for use as a medicament.

20 14. A pharmaceutical formulation comprising a compound of formula I, as defined in any one of claims 1 to 12 and a pharmaceutically acceptable adjuvant, diluent or carrier.

15. Use of a compound of formula I, as defined in any one of claims 1 to 12 including the compounds of the proviso in claim 1 in the preparation of a medicament for the treatment or  
25 prophylaxis of obesity, psychiatric disorders such as psychotic disorders, schizophrenia and bipolar disorders, anxiety, anxio-depressive disorders, depression, cognitive disorders, memory disorders, obsessive-compulsive disorders, anorexia, bulimia, attention disorders, epilepsy, and related conditions, and neurological disorders such as dementia, neurological disorders, Parkinson's Disease, Huntington's Chorea and Alzheimer's Disease, immune,  
30 cardiovascular, reproductive and endocrine disorders, septic shock, diseases related to the respiratory and gastrointestinal systems, and extended abuse, addiction and/or relapse indications.

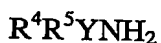
- 32 -

16. A method of treating obesity, psychiatric disorders such as psychotic disorders, schizophrenia and bipolar disorders, anxiety, anxio-depressive disorders, depression, cognitive disorders, memory disorders, obsessive-compulsive disorders, anorexia, bulimia, attention disorders, epilepsy, and related conditions, and neurological disorders such as dementia, neurological disorders, Parkinson's Disease, Huntington's Chorea and Alzheimer's Disease, immune, cardiovascular, reproductive and endocrine disorders, septic shock, diseases related to the respiratory and gastrointestinal systems, and extended abuse, addiction and/or relapse indications, comprising administering a pharmacologically effective amount of a compound as claimed in any one of claims 1 to 12 including the compounds of the proviso in claim 1 to a patient in need thereof.
17. A compound as defined in any one of claims 1 to 12 including the compounds of the proviso in claim 1 for use in the treatment of obesity.
18. A process for the preparation of compounds of formula I in which X is CO comprising reacting a compound of formula III



III

in which  $R^1$ ,  $R^2$ ,  $R^3$ , and  $R^6$  are as previously defined and L represents hydroxy or halo with an amine of formula IV

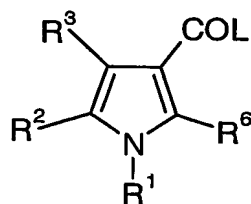


IV

- 33 -

in which R<sup>4</sup> and R<sup>5</sup> are as previously defined in an inert solvent and optionally in the presence of a catalyst or optionally in the presence of a base at a temperature in the range of -25°C to 150°C, and when L is hydroxy optionally in the presence of a coupling agent.

5 19. A compound of formula III



III

in which R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup>, and R<sup>6</sup> are as previously defined and L represents hydroxy or halo.

10 20. A compound selected from one or more of the following:

Ethyl 2-methyl-1,5-diphenyl-1*H*-pyrrole-3-carboxylate

Ethyl 1-(4-chlorophenyl)-2-methyl-5-phenyl-1*H*-pyrrole-3-carboxylate

Ethyl 1-(4-methoxyphenyl)-2-methyl-5-phenyl-1*H*-pyrrole-3-carboxylate

Ethyl 5-(2,4-dichlorophenyl)-2-methyl-1-phenyl-1*H*-pyrrole-3-carboxylate

15 Ethyl 1-(4-chlorophenyl)-5-(2,4-dichlorophenyl)-2-methyl-1*H*-pyrrole-3-carboxylate

Ethyl 5-(2,4-dichlorophenyl)-1-(4-methoxyphenyl)-2-methyl-1*H*-pyrrole-3-carboxylate

Ethyl 5-(2,4-dimethoxyphenyl)-2-methyl-1-phenyl-1*H*-pyrrole-3-carboxylate

Ethyl 1-(4-chlorophenyl)-5-(2,4-dimethoxyphenyl)-2-methyl-1*H*-pyrrole-3-carboxylate

Ethyl 5-(2,4-dimethoxyphenyl)-1-(4-methoxyphenyl)-2-methyl-1*H*-pyrrole-3-carboxylate

20 2-Methyl-1,5-diphenyl-1*H*-pyrrole-3-carboxylic acid

1-(4-Chlorophenyl)-2-methyl-5-phenyl-1*H*-pyrrole-3-carboxylic acid

5-(2,4-Dichlorophenyl)-2-methyl-1-phenyl-1*H*-pyrrole-3-carboxylic acid

1-(4-Chlorophenyl)-5-(2,4-dichlorophenyl)-2-methyl-1*H*-pyrrole-3-carboxylic acid

5-(2,4-Dichlorophenyl)-1-(4-methoxyphenyl)-2-methyl-1*H*-pyrrole-3-carboxylic acid

25 5-(2,4-Dimethoxyphenyl)-2-methyl-1-phenyl-1*H*-pyrrole-3-carboxylic acid

1-(4-Chlorophenyl)-5-(2,4-dimethoxyphenyl)-2-methyl-1*H*-pyrrole-3-carboxylic acid and

5-(2,4-Dimethoxyphenyl)-1-(4-methoxyphenyl)-2-methyl-1*H*-pyrrole-3-carboxylic acid.

- 34 -

21. A compound as defined in any one of claims 1 to 12 combined with another therapeutic agent that is useful in the treatment of disorders associated with the development and progress of obesity such as hypertension, hyperlipidaemias, dyslipidaemias, diabetes and atherosclerosis.